

## Use of stable amine-capped polyynes in the regioselective synthesis of push-pull thiophenes.

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### Rok wydania

2017

### Czasopismo

Journal of Organic Chemistry

### Numer woluminu

82

### Strony

1487-1498

### DOI

10.1021/acs.joc.6b02685

### Kolekcja

Naukowa

### Język

Angielski

### Typ publikacji

Artykuł

### Streszczenie

The reactions of a series of 1-halopolyynes with secondary amines led to novel amine end-capped polyynes exhibiting surprisingly high stability towards moisture. The new compounds were characterized by NMR spectroscopy, ESI-MS spectrometry, and x-ray single-crystal diffractometry. The use of amine end-capped polyynes as precursors to substituted push-pull thiophenes was next presented. The results show the first - to the best of our knowledge - transformation of ynamine to thiophene and the first regioselective transformation of a longer polyynes to butadiyne-substituted thiophene. Photophysical studies of the resulting compounds show that some of the substituted thiophenes have high quantum yield photoluminescence upon UV light irradiation.

### Adres publiczny

<http://dx.doi.org/10.1021/acs.joc.6b02685>

### Strona internetowa wydawcy

<https://www.acs.org/content/acs/en.html>